AMENDMENTS TO THE CLAIMS

The applicant submits the following amendments to the claims:

New listing of claims as presently pending in the case as at March 16, 2004:

1. (Previously presented) An articulated rail road car having a plurality of rail car units carried on a plurality of pivotally mounted rail car trucks, each said truck having spaced apart axles, said rail road car having releasable couplers at either end thereof for connection to other railroad cars, and a rolling direction defining a longitudinal direction, said plurality of rail car units including a first rail car unit and a second rail car unit connected together at an articulation connection, said rail car trucks including a first rail car truck located closer to said articulation connection than any other of said rail car trucks, said first rail car truck being pivotally mounted to said first rail car unit, said articulation connection being longitudinally eccentrically mounted relative to said first truck; and said articulation connection being operable to pass a vertical shear load from said second rail car unit to said first rail car unit.

2. (Original) The articulated rail road car of claim 1 wherein said first truck is a two axle truck mounted to pivot about a vertical truck center axis relative to said first car unit, and said articulation connection is cantilevered longitudinally relative to the truck center axis.

3. (Original) An articulated rail road car as claimed in claim 1 wherein said first and second rail car units have mutually engaging side bearing arms.

4. (Original) The articulated rail road car of claim 1 wherein said articulation connection has a first portion mounted to said first rail car unit, and a mating second portion mounted to said second rail car unit, said first and second portions meeting on a bearing interface defining a portion of a spherical surface.

5. (Original) The articulated rail road car of claim 4 wherein said articulation connection has a first portion mounted to said first rail car unit, and a mating second portion mounted to said second rail car unit, said articulation connection being capable of transferring a vertical shear load from said second portion to said first portion.

6. (Previously presented) An articulated rail road car, said rail road car having releasable couplers at either end thereof for connection to other rail road cars, a longitudinal rolling direction, and wherein:

said articulated rail road car includes at least first and second rail car units carried on pivotally mounted rail car trucks, each said truck having spaced apart axles, said first and second rail car units being joined at an articulated connection through which vertical shear loads are passed between said first and second rail car units;

said first rail car unit has a first end proximate to said articulated connection, and a second end distant from said articulation connection;

said first rail car unit has a first of said rail car trucks pivotally mounted thereunder, said first rail car truck being closer to said articulation connection than any other of said rail car trucks;

said first rail car truck being located closer to said first end of said first rail car unit than to said second end of said first rail car unit; and

said articulation connection is longitudinally eccentric relative to said first rail car truck.

7. (Previously presented) The articulated rail road car of claim 6 wherein:

said second rail car unit has a first end proximate to said articulation connection, and a second end distant from said articulated connection;

said second rail car unit has a second of said rail car trucks mounted thereunder, said second rail car truck being located closer to said second end of said second rail car unit than to said first end of said second rail car unit; and

said second rail car unit is free of rail car trucks between said articulation connection and said second rail car truck.

Claims 8-12 (cancelled)

13. (Previously presented) The articulated rail road car of claim 6 wherein:

said first rail car unit is supported by a second of said rail car trucks; and

said second rail car truck is located closer to said second end of said first rail car unit than to said first end of said first rail car unit.

14. (Previously presented) The articulated rail road car of claim 6 wherein:

said articulation connection is a first articulation connection;

said rail road car includes a third rail car unit joined to said second end of said first rail car unit at a second articulation connection;

a second of said rail car trucks is pivotally mounted under said second end of said first rail car unit;

said second rail car unit has a first end proximate to said first articulation connection, and a second end distant from said first articulated connection;

a third of said rail car trucks is mounted under said second end of said second rail car unit;

said third rail car unit has a first end proximate to said second articulation connection, and a second end distant from said second articulated connection; and

a fourth of said rail car trucks is mounted under said second end of said third rail car unit.

15. (Previously presented) The articulated rail road car of claim 14 wherein said rail road car is a three-pack articulated rail road car, said first rail car unit is a two truck middle car unit, and said second and third rail car units are single truck end units each having one of said releasable couplers mounted at the respective second ends thereof.

16. (Original) The articulated rail road car of claim 14 wherein:

said first rail car unit and said second rail car unit have mutually engaging side bearing arms mounted thereto; and

said first rail car unit and said third rail car unit have mutually engaging side bearing arms mounted thereto.

17. (Original) The articulated rail road car of claim 14 wherein said second articulation connection is longitudinally eccentrically located relative to said second rail car truck.

18. (Original) The rail road car of claim 6 wherein:

said first rail car truck has a first pair of wheels mounted on a first axle, and a second pair of wheels mounted on a second axle;

said first axle being longitudinally outboard relative to said second axle; and

said articulation connection being longitudinally outboard relative to said first axle.

19. (Original) The rail road car of claim 6 wherein said first car unit has side bearing arms extending from said first end thereof toward said second car unit; and said second car unit has side bearing arms extending therefrom to engage said side bearing arms of said first car unit.

20. (Previously presented) The rail road car of claim 19 wherein said side bearing arms of said first car unit have bearing surfaces facing upward, and said side bearing arms of said second car unit have bearing surfaces facing downward.

21. (Original) The rail road car of claim 6 wherein:
said first car unit has a main bolster mounted over said first truck, and a center sill extending longitudinally outboard therefrom;
said center sill has a distal end longitudinally distant from said main bolster; and
said articulation connection is mounted to said distal end of said center sill.

Claims 22, 23 (cancelled)

24. (Original) The rail road car of claim 21 wherein said center sill is a through center sill extending between said first and second ends of said first rail car unit.

Claims 25-27 (cancelled)

28. (Original) An articulated rail road car wherein:
said rail road car has first and second rail car units joined at an articulation connection;
said rail road car has a plurality of rail car trucks to permit said rail road car to proceed in a rolling direction along rail road tracks, said rolling direction defining a longitudinal direction;
said first rail car unit has a first end proximate said articulation connection and a second end distant from said articulation connection;
said first rail car unit is mounted upon a pair of said rail car trucks, said pair being first and second rail car trucks located under said first and second ends of said first rail car unit respectively, and being pivotable relative thereto about truck center axes;
said first and second rail road car trucks being separated by a truck center distance of at least 46 ft. 3 in.;
said articulation connection being closer to said first rail car truck than to any other rail car truck;
said first rail car unit has a pair of first and second bolsters located at either end thereof,

said bolsters being mounted over said first and second rail car trucks respectively;

said first rail car unit has a center sill extending outboard of said first bolster toward said second rail car unit, said center sill having an outboard end; and

said articulation connection is mounted to said outboard end of said center sill.

29. (Original) The articulated rail road car of claim 28 wherein:

said second rail car unit has a first end proximate said articulation connection and a second end distant from said articulation connection;

said second rail car unit is mounted upon a third rail car truck located under said second end of said second rail car unit; and

said second rail car unit is free of trucks between said third rail car truck and said articulation connection.

Claims 30, 31 (cancelled)

32. (Original) The articulated rail road car of claim 28 wherein:

said articulation connection is a first articulation connection, said outboard end of said center sill is a first end thereof; and

said rail road car has a third rail car unit connected to said second end of said first rail car unit at a second articulation connection.

33. (Original) The articulated rail road car of claim 32 wherein:

said center sill is a through center sill having a second end located outboard of said second main bolster; and

said second articulation connection is mounted to said second end of said center sill.

34. (Original) The articulated rail road car of claim 33 wherein:

said third rail car unit has a first end proximate said second articulation connection and a second end distant from said second articulation connection;

said third rail car unit is mounted upon a fourth rail car truck located under said second end of said third rail car unit; and

said third rail car unit is free of trucks between said fourth rail car truck and said second articulation connection.

Claims 35-40 (cancelled)

41. (Previously presented) An articulated rail road car wherein, when standing on tangent track:
said rail road car has a first rail car unit and a second rail car unit, said first and second rail car units being joined at an articulated connection;
each of said first and second rail car units has a proximal end near to said articulated connection, and a distal end lying away from said articulated connection;
the distal end of said first rail car unit is supported by a first rail car truck;
the distal end of said second rail car unit is supported by a second rail car truck;
a third rail car truck is pivotally mounted to said rail road car between said first and second trucks, said rail road car being free of trucks between said first and third trucks, and being free of trucks between said third truck and said second truck;
said third truck being spaced from said first truck a first distance, D_1;
said articulated connection being spaced from said first truck a second distance, D_2; and
said first distance, D_1, being less than said second distance, D_2.

42. (Original) The articulated rail road car of claim 41 wherein:
said third truck is spaced from said second truck a third distance, D_3; and
D_3 is different from D_1.

43. (Original) The articulated rail road car of claim 42 wherein D_3 is greater than D_1.

44. (Original) The articulated rail road car of claim 41 wherein:
said third truck is spaced from said articulated connection a third distance, D_3;
said second truck is spaced from said articulated connection a fourth distance, D_4; and
D_4 is greater than D_3.

45. (Original) The articulated rail road car of claim 41 wherein said third rail car truck is pivotally mounted to said first rail car unit and said first distance, D_1, is at least 46 ft. - 3 in.

46. (Previously presented) An articulated rail road freight car having releasable couplers mounted at either end thereof, said articulated rail road freight car being supported by a plurality of pivotally mounted railcar trucks, each of said pivotally mounted trucks

having spaced apart axles, and said articulated rail road freight car having at least first and second rail car units connected at a cantilevered articulation through which vertical shear loads are passed between said first and second rail car units.

47. (Previously presented) The articulated rail road freight car of claim 58 wherein said first and second rail car units each have at least one deck upon which vehicles can be loaded.

48. (Original) The articulated rail road freight car of claim 47 further comprising at least one member mounted to permit vehicles to be conducted between said first and second rail car units.

49. (Original) The articulated rail road freight car of claim 47 further comprising bridge plates mounted to permit vehicles to be driven from said first rail car unit to said second rail car unit.

50. (Previously presented) The articulated rail road freight car of claim 58 wherein said first and second rail car units have mutually engaging side bearing arms.

51. (Previously presented) The articulated rail road freight car of claim 58 wherein said rail road car is an auto-rack car.

52. (Original) The articulated rail road freight car of claim 51 further comprising bridge plates mounted to permit automobiles to be conducted between said first and second rail car units.

53. (Original) The articulated rail road freight car of claim 51 wherein said first and second rail car units have mutually engaging side bearing arms.

54. (Previously presented) The articulated rail road freight car of claim 58 wherein at least one of said first and second rail car units is a well car unit.

Claims 55, 56 (cancelled)

57. (Original) An articulated rail road freight car comprising a three pack rail road car having a two-truck middle unit and a pair of single truck end units, the middle unit being connected to at least

one of the end units at a cantilevered articulation, and said two-truck middle unit having a pair of first and second spaced apart two axle trucks pivotally mounted thereto.

58. (Previously presented) An articulated rail road freight car comprising at least first and second rail car units connected at a cantilevered articulated connector through which vertical shear loads are passed between said first and second rail car units, said rail road freight car having a first end, a second end, and a releasable coupler mounted at each of said first and second ends, said releasable couplers being operable to permit interchangeable operation with other rail road freight cars in North American service.

59. (Original) The articulated rail road freight car of claim 57 wherein each said rail car has at least one deck upon which vehicles can be loaded.

60. (Original) The articulated rail road freight car of claim 59 further comprising at least one member mounted to permit vehicles to be conducted between adjacent rail road cars.

61. (Previously presented) The articulated rail road car of claim 59 further comprising bridge plates mounted to permit vehicles to be driven from each said rail car unit to an adjacent said rail car unit.

62. (Original) The articulated rail road freight car of claim 57 wherein each said rail car unit has mutually engaging side bearing arms.

63. (Original) The articulated rail road freight car of claim 57 wherein each said rail road car is an auto-rack car.

64. (Original) The articulated rail road freight car of claim 63 further comprising bridge plates mounted to permit automobiles to be conducted from each said rail car unit to an adjacent rail car unit.

65. (Original) The articulated rail road freight car of claim 63 wherein said first and second rail car units have mutually engaging side bearing arms.

66. (currently amended) The articulated rail road freight car of claim 58 wherein:

said first railcar unit has a first end and a second end;

said second railcar unit has a first end and a second end;

said second end of said first railcar unit is joined to said first end of said second railcar unit at said articulated connector;

the second rail car unit is supported upon a pair of pivotally mounted, spaced apart, first and second two-axle railcar trucks, each of said trucks having a truck center;

said first truck of said second rail car unit is located closer to said [first] articulated connector than any other truck of said rail road car; and

said [first] articulated connector is offset from said truck center of said first truck.

67. (Original) The articulated rail road freight car of claim 66 wherein said first railcar unit has a two-axle truck pivotally mounted thereunder, and said two axle truck of said first railcar unit is located closer to said first end of said first railcar unit than to said second end of said first railcar unit.

68. (Original) The articulated railroad freight car of claim 67 wherein a coupler is mounted at said first end of said first railcar unit.

69. (currently amended) The articulated rail road freight car of claim 66 wherein:

said articulated connector is a first articulated connector;

said railroad freight car includes a third railcar unit;

the third rail car unit has a first end and a second end;

the second end of the second rail car unit is joined to the first end of the third rail car unit at a second articulated connector;

said second truck of said second rail car unit is located closer to said second articulated connector than any other truck of said rail road car; and

said second articulated connector is offset from said truck center of said second truck.

70. (Original) The articulated rail road freight car of claim 69 wherein said third railcar unit has a two-axle truck pivotally mounted thereunder, and said two axle truck of said third railcar unit is located closer to said second end of said third railcar unit than to said first end of said third railcar unit.

71. (Original) The articulated rail road freight car of claim 70 wherein a releasable coupler is mounted at said second end of said third railcar unit.

72. (Previously presented) An articulated rail road freight car, wherein:

said rail road freight car has a first end, a second end, and a coupler mounted at each of said first and second ends, said couplers being operable to permit connection to other rail road cars;

said articulated rail road freight car is supported by a plurality of railcar trucks mounted to permit said rail road car to travel in a longitudinal direction along railroad tracks;

said rail road freight car includes at least first and second rail car units;

said first rail car unit has a first end and a second end;

said second rail car unit has a first end and a second end;

said second end of said first railcar unit is joined to said first end of said second railcar unit at a first articulated connector through which vertical shear leads are passed between said first and second railcar units;

said plurality of railcar trucks includes a pair of first and second spaced apart, two-axle railcar trucks pivotally mounted to said second railcar unit;

said first two-axle truck is mounted closer to said first articulated connector than is any other rail car truck of said articulated rail road freight car;

said first two-axle railcar truck has a truck center; and

said truck center of said first two-axle truck is longitudinally offset from said first articulated connector.

73. (Original) The articulated rail road freight car of claim 72 wherein:

the first end of said first rail car unit is supported by a second rail car truck;

the second end of said second rail car unit is supported by a third rail car truck;

said rail road car is free of trucks between said first and second trucks, and is free of trucks between said first truck and said third truck;

said first truck is spaced from said second truck a first distance, D_1;

said articulation connection being spaced from said second truck a second distance, D_2; and

said first distance, D_1, being less than said second distance, D_2.

74. (Original) The articulated rail road car of claim 73 wherein:

said third truck is spaced from said second truck a third distance, D_3; and

D_3 is different from D_1.

75. (Original) The articulated rail road car of claim 74 wherein D_3 is greater than D_1.

76. (Original) The articulated rail road car of claim 73 wherein:

said third truck is spaced from said articulated connection a third distance, D_3;
said second truck is spaced from said articulated connection a fourth distance, D_4; and
D_4 is greater than D_3.

77. (Original) The articulated rail road car of claim 73 wherein said third rail car truck is pivotally mounted to said first rail car unit and said first distance, D_1, is at least 46 ft. - 3 in.

78. (Original) The articulated rail road freight car of claim 72 wherein said first and second rail car units each have at least one deck upon which vehicles can be loaded.

79. (Original) The articulated rail road freight car of claim 78 further comprising bridge plates mounted to permit vehicles to be driven from said first rail car unit to said second rail car unit.

80. (Original) The articulated rail road freight car of claim 72 wherein said first and second rail car units have mutually engaging side bearing arms.

81. (Original) The articulated rail road freight car of claim 72 wherein said rail road car is an auto-rack car.

82. (Original) The articulated rail road freight car of claim 72 wherein at least one of said first and second rail car units is a well car unit.

83. (Original) An articulated rail road freight car, comprising:
at least a first rail car unit, a second railcar unit, and a third rail car unit;
said rail car units being supported by a plurality of railcar trucks for rolling motion along rail road tracks;
the first railcar unit having a first end and a second end;
the second railcar unit having a first end and a second end;
the third rail car unit having a first end and a second end;
the second end of the first rail car unit being joined to the first end of the second rail car unit at a first articulated connector;
the second end of the second rail car unit being joined to the first end of the third rail car unit at a second articulated connector;

the second rail car unit being supported upon a pair of pivotally mounted, spaced apart, first and second two axle railcar trucks, each of said trucks having a truck center;

said first truck of said second rail car unit being located closer to said first articulation connector than any other truck of said rail road car; and

said first articulated connector being offset from said truck center of said first truck.